

AMENDMENTS TO THE SPECIFICATION

Please replace the paragraph that begins on line 23 of page 7 with the following:

For instance, an allowable thickness variation with respect to latitude (specification) for process control can be calculated to determine the period of time for measurement. The thickness variation in the process is calculated by a formula of:

$$\sqrt{S^2 + T^2} \leq U \quad \text{.....(1)}$$

where S is a variation in thickness of the gate oxide film, T is a variation in thickness of the gate oxide film according to the exposure period and U is ~~a specification latitude~~ an allowable thickness variation for the process control. The allowable variation S is calculated at 3σ where σ represents standard deviation, as is generally well known in statistics. The variation S is produced when the gate oxide film is formed. ~~The graph of Fig. 3 varies with every film, and the thickness variation T indicates the variation in thickness that occurs.~~

Please amend the paragraph that begins on page 10, line 5, to read as follows:

Incidentally, if the exposure period t was set to be zero in the formula (2), the thickness of the gate oxide film calculated by the formula (2) is 0 Å. This means that the gate oxide film 8 does not exist. If the exposure period t is less than one minute, the thickness of the oxide film calculated by the formula (2) is less than the thickness of the oxide film (b in the formula) that is present immediately after the formation of the same. Therefore, the exposure period t cannot be set to be less than 1 min when the thickness is measured immediately after the gate oxide film is formed. In practice, the initial thickness of the gate oxide film 8 is measured after the wafer is taken out of an apparatus for forming the oxide film 8. Because of this, approximately 1 min or more is required to measure the initial thickness of the gate oxide film 8 from the formation of the gate oxide film 8. Therefore, the approximate formula (2) meets the practical use.

Please replace the paragraph that begins on line 21 of page 15 with the following:

In the embodiments described above, the thickness of the gate oxide film is in a range of approximately 90 Å to 110 Å. However, the present invention is especially effective when the thickness of the gate oxide film is less than approximately 100 Å. The thinner the oxide film is, the more prominent the ~~rate of variation in change-increase of~~ the thickness is prominent. Therefore, in such a case, the thickness control according to the present invention is very effective to measure the real thickness precisely. It is apparent that the present invention can be applied to a gate oxide film that is more than 100 Å in thickness as well.